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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,261	07/14/2003	Kenji Yamasaki	420100-04659	9557

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EXAMINER	
CHIO, TAT CHI	
ART UNIT	**PAPER NUMBER**
2621	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/619,261	YAMASAKI ET AL.	
	Examiner	Art Unit	
	Tat Chi Chio	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/14/2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6,7,10,11,13,14-16,18,19,20,23,24, and 26* is/are rejected.

7)☒ Claim(s) *4, 8, 9, 12, 17, 21, 22, and 25* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/5/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-3, 5, 6, 10, 11, 13, 14-16, 18, 19, 23, 24, and 26 are rejected under 35 U.S.C. 103(a) as being obvious over Aoki et al. (5,771,331) in view of Moon et al. (US 6,408,338 B1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing

that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Consider claims 1 and 14, Aoki et al. teach a picture data reproducing apparatus which reproduces picture data recorded to a recording medium according the MPEG standard, the apparatus comprising:

- a stream buffer which provisionally stores picture data grouped as a GOP which begins with an I picture (Ring buffer of Fig. 1);
- a decoding means for reading picture data provisionally stored in the stream buffer sequentially starting with a previous picture and decoding the read picture data in the course of a FORWARD reproduction being done (Decoder of Fig. 1); and
- a data adding means for additionally supplying picture data acquired from the recording medium to the stream buffer (Pickup and Sector Detection Circuit of Fig. 1);

but Aoki et al. fail to teach the data adding means additionally supplying, when the picture data provisionally stored in the stream buffer have been read by the decoding means to before last N, a predetermined amount of picture data beginning at the head of a GOP including picture data in the remaining N-th frame in the stream buffer.

Moon et al. teach the data adding means additionally supplying, when the picture data provisionally stored in the stream buffer have been read by the decoding means to before last N, a predetermined amount of picture data beginning at the head of a GOP including picture data in the remaining N-th frame in the stream buffer (N = 0, col. 2,

lines 40-46). It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a data adding means to supply data to the buffer when the buffer is empty in order to maintain the original time intervals of packet data during playback so that decoding can be smoothly performed.

Consider claims 2 and 15, Aoki et al. teach the apparatus, wherein the data adding means additionally supplies a predetermined amount of picture data corresponding to the capacity of the stream buffer to the latter (Fig. 14).

Consider claims 3 and 16, Aoki et al. teach the apparatus, wherein the data adding means additionally supplies the picture data to the stream buffer as in a ring buffer to next to the last picture already added to the stream buffer (Ring buffer of Fig. 1).

Consider claims 5 and 18, Aoki et al. teach the apparatus, wherein when the reproduction direction is shifted from FORWARD to REVERSE: the decoding means reads the picture data provisionally stored in the stream buffer sequentially starting with a next picture and decode the read picture data; and the data adding means additionally supplies, when picture data in a current GOP whose all grouped pictures are provisionally recorded in the stream buffer have been read by the decoding means to before last M frames, picture data in a previous GOP laid before at least the current GOP to the stream buffer (M = 0, Fig. 15).

Consider claims 6 and 19, Aoki et al. and Moon et al. teach a picture data reproducing apparatus for reproducing, by decoding, picture data compressed by encoding according to the MPEG Standard, comprising:

- a stream buffer which provisionally stores the picture data grouped as a GOP which begins with an I picture (Ring buffer of Fig. 1 of Aoki et al.);
- a decoding means for reading the picture data provisionally stored in the stream buffer sequentially starting with a next picture and decoding the picture data in the course of a REVERSE reproduction being done(Decoder of Fig. 1 of Aoki et al.);
- a data adding means for additionally supplying picture data acquired from a recording medium to the stream buffer (Pickup and Sector Detection Circuit of Fig. 1 of Aoki et al.);
- the data adding means additionally supplying, when picture data in a current GOP whose all grouped pictures are provisionally recorded in the stream buffer have been read by the decoding means to before last M frames, picture data in a previous GOP laid before at least the current GOP to the stream buffer (M = 0, col. 2, lines 40-46 of Moon et al. and Fig. 15 of Aoki et al.).

Consider claims 10 and 23, Aoki et al. teach the apparatus, wherein the data adding means determines an address in a stream buffer at which the addition of picture data is to be started correspondingly to an address of the top picture in the current GOP in the stream buffer, amount of picture data to be additionally supplied and the capacity of the stream buffer (col. 6, lines 55-67 and col. 7, lines 1-9).

Consider claims 11 and 24, Aoki et al. teach the apparatus, wherein the data adding means additionally supplies the picture data as in a ring buffer (Ring buffer of Fig. 1).

Consider claims 13 and 26, Aoki et al. teach the apparatus, wherein when the reproduction direction is shifted from REVERSE to FORWARD: the decoding means reads the picture data provisionally stored in the stream buffer sequentially starting with a previous picture and decodes the picture data (Decoder of Fig. 1); and Moon et al. teach the data adding means additionally supplies, when picture data provisionally recorded in the stream buffer have been read by the decoding means to before last N frames, a predetermined amount of picture data beginning at the head of a GOP including picture data in the remaining N-th frame (N = 0, col. 2, lines 40-46).

3. Claims 7 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki et al. (5,771,331) in view of Moon et al. (US 6,408,338 B1) as applied to claims 6 and 19 above, and further in view of Chen et al. (US 2001/0026677 A1).

Consider Claims 7 and 20, Aoki et al. and Moon et al. teach all the limitations in claim 6 but fail to teach the apparatus, wherein the data adding means additionally supplying P frames of picture data beginning at the head of the current GOP in addition to the picture data in the previous GOP.

Chen et al. teach the apparatus, wherein the data adding means additionally supplying P frames of picture data beginning at the head of the current GOP in addition to the picture data in the previous GOP (step 100 of Fig. 2 and [0031]). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to supply additional P frames to recover additional I-slices that allow assembly of additional complete I-frame, which can be used to facilitate trick play modes.

Allowable Subject Matter

4. Claims 4, 8, 9, 12, 17, 21, 22, and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tat Chi Chio whose telephone number is (571) 272-9563. The examiner can normally be reached on Monday - Thursday 8:30 AM-6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on (571)-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TCC